

(Model.)

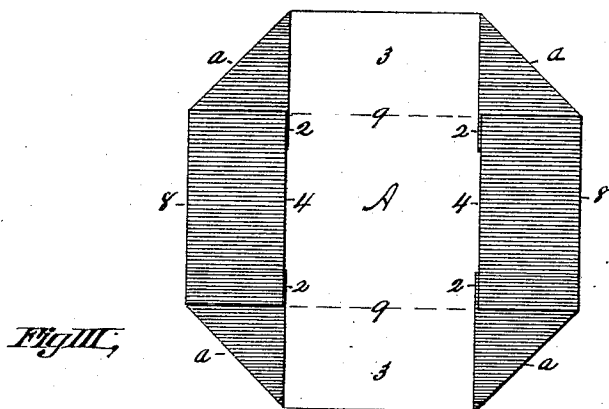
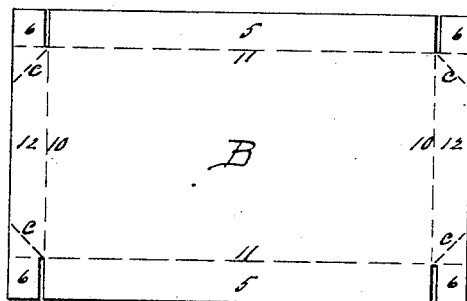
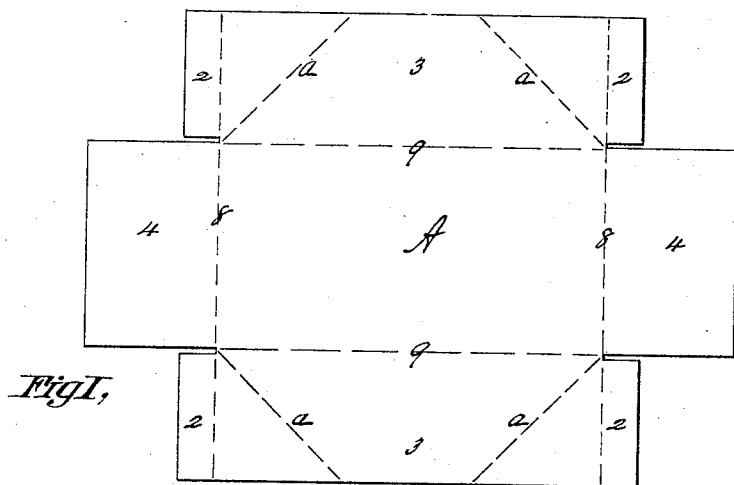
2 Sheets—Sheet 1.

J. C. HURD.

KNOCKDOWN PAPER BOX.

No. 340,915.

Patented Apr. 27, 1886.



Witnesses,
A. J. Hyde
Wm. H. Chapin

Inventor,
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By Henry A. Chapin

(Model.)

2 Sheets—Sheet 2.

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Fig. II,

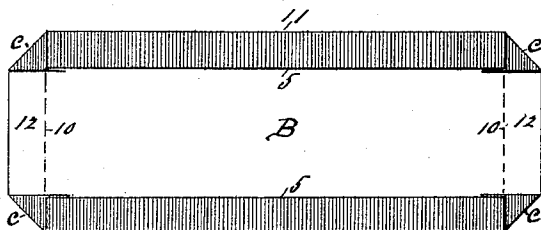


Fig. I,

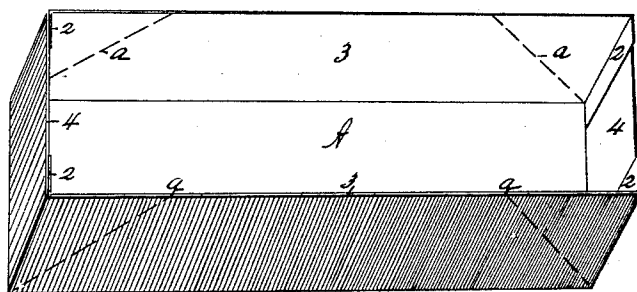
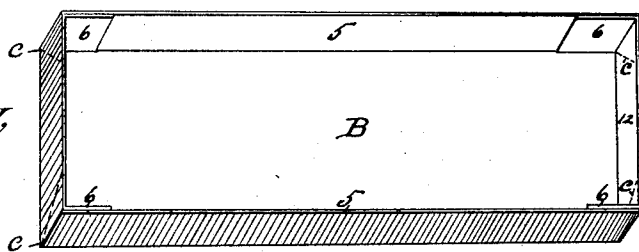


Fig. III,



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UNITED STATES PATENT OFFICE.

JAMES C. HURD, OF SPRINGFIELD, MASSACHUSETTS.

KNOCKDOWN PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 340,915, dated April 27, 1886.

Application filed June 23, 1882. Serial No. 65,017. (Model.)

To all whom it may concern:

Be it known that I, JAMES C. HURD, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Knockdown Paper Boxes, of which the following is a specification.

This invention relates to improvements in that class of paper boxes known as "knock-down boxes," the object being to provide an uncovered or five-sided box of this class capable of being instantly folded from a "set-up" to a flat position, and vice versa.

In the drawings forming part of this specification, Figure I illustrates a box-blank from which a paper box embodying my improvements is constructed. Fig. II illustrates a blank from which a cover to said box is made. Fig. III represents a box folded flat which was made from the blank, Fig. I. Fig. IV represents a flat-folded box-cover made from the blank, Fig. II. Fig. V represents the box, Fig. III, set-up; and Fig. VI, the cover, Fig. IV, in like position to the box, Fig. V.

In the drawings, A indicates the bottom of the box, 3 3 the sides, 4 4 the ends, and 2 2 2 2 the corner-flaps thereof. 8 and 9 indicate the right-angle folding-lines of said box, and *a a a a* folding-lines running at an angle to lines 8 and 9.

B indicates the top of the box-cover, 5 5 and 12 12, respectively, the sides and the ends thereof, and 6 6 6 6 its corner-flaps. 10 and 11 indicate the right-angle folding-lines of said cover, and *c c c c* the folding-lines thereof, running at angles to said lines 10 and 11.

Said box and cover blanks are cut, in the usual manner, from any suitable paper-board, and the above-indicated folding-lines thereon are formed, as ordinarily, by scoring or indenting them, to permit of properly folding the several parts of the blanks to form the objects for which they are intended.

To form the box first in a flat or knock-down form, as in Fig. III, the opposite corners of the two sides 3 3, outside of the lines *a*, are folded upon said last-named lines, bringing said corners to lie upon said sides and the flaps 2 to lie upon the bottom A. Cement is then applied to the upper sides of said flaps 2, and the ends 4 are folded upon said flaps, and a proper fixing-weight is laid

upon said ends until said cement has so dried as to unite the said flaps and ends.

In order to bring those parts of the sides 3 of the blank to which the flaps 2 are attached into such a position as will allow of cementing the ends 4 to the latter, so that the parts 4 and 2 will occupy the requisite positions relative to each other shown in Fig. III, the folding-lines *a* are formed on said sides at an angle of forty-five degrees to the lines 8 and 9.

When it becomes desirable to set up the box, making it assume the form shown in Fig. V, it may be done by simply pressing the sides 3 upward, or by drawing the edges of the ends 4 from each other, and the box is at once so prepared for the reception of its contents, no hooking of parts together being required, as in many knockdown boxes.

The cover-blank, Fig. II, is folded and cemented upon a similar plan to that employed in folding said box, but with the difference that the sides of the cover are made so that they incline to fold inward toward the top B, after the cover is finished, while the sides of the box incline to fold or spring outward or away from the bottom A after the parts are folded and connected, as in Fig. III. Thus, when said cover is placed on the box, the former co-operates with the latter, by reason of the above-described inclination of box and cover to fold in opposite directions, to retain the box in an upright position when empty.

In folding and securing the said box cover in the flat position shown in Fig. IV, the corner-flaps 6 and those parts of the ends of the cover (12) outside of the lines *c c c c* are folded on said lines, and the upper sides of the flaps 6 are then cemented, and the sides 5 of the cover are next folded over upon said flaps, and there held in any convenient manner until said cemented parts firmly adhere to each other, when the cover takes the form shown in Fig. IV, and is changed from the latter to that shown in Fig. VI by either bending up the ends 12 or drawing the sides 5 outward. In forming the folding-lines *c* on said cover-blank they are made at an angle of forty five degrees to the lines 10 and 11 thereon.

What I claim as my invention is—

1. The herein-described blank for a paper box, consisting of the bottom and end parts, A 4 4, and the continuous side parts, 3 3, hav-

ing the indented or scored folding-lines *a a* therein, running at an angle of forty-five degrees to their edges, and the flaps 2 2 on the ends thereof, and provided with the folding-
5 lines 8 9 therein at the junction of said side and end parts with said bottom part, substantially as set forth.

2. A box having its bottom, sides, and ends in one piece of material, the sides and ends
10 being bent up and united, and either both

sides or both ends provided with creases or scores extending obliquely across them from corners to the upper edge, whereby the box may be knocked down flat, substantially as described.

JAMES C. HURD.

Witnesses:

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